SALMONELLOSIS
(non-typhoidal)

Clinical Features: Acute gastroenteritis with sudden onset of fever, headache, diarrhea, abdominal pain, nausea, and sometimes vomiting. Dehydration may be severe. Asymptomatic infections and extraintestinal infections can occur. Children younger than 4 years of age, elderly individuals, and persons with immunosuppressive conditions may experience severe complications, including invasive infection and mortality.

Causative Agent: *Salmonella enterica* subsp. *enterica* serovars, gram-negative bacteria (~2,000 serotypes cause human infection)

Mode of Transmission: Naturally found in a wide range of domestic and wild animals, such as poultry, livestock, reptiles, and pets. Transmission occurs by ingestion of organisms in water or food contaminated by feces of an infected animal or person or food derived from infected animals. Handling raw meat or poultry products, or contact with infected reptiles, can also result in transmission.

Incubation Period: 6-72 hours, usually 12-36 hours.

Period of Communicability: Extremely variable, usually several days to several weeks dependent upon the course of infection. A carrier state can continue for over 1 year in 1% of adults and 5% of children under 5 years of age, especially infants. Prolonged, asymptomatic fecal shedding can promote person-to-person transmission.

Public Health Significance: Disease can be prevented by promotion of good hand washing and food handling practices. Symptomatic food handlers should be excluded from normal duties. Outbreak situations should be examined for a common vehicle of transmission. Situations in which control cannot be established may require exclusion of infected persons from daycare, patient care, or food handling.

Reportable Disease in Kansas Since: 1982

Laboratory Criteria for Surveillance Purposes

- Isolation of *Salmonella* from a clinical specimen.

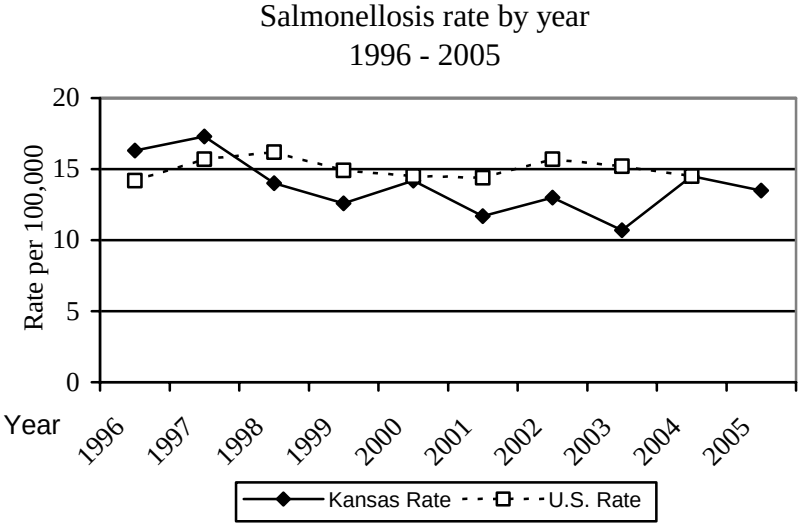
Surveillance Case Definitions

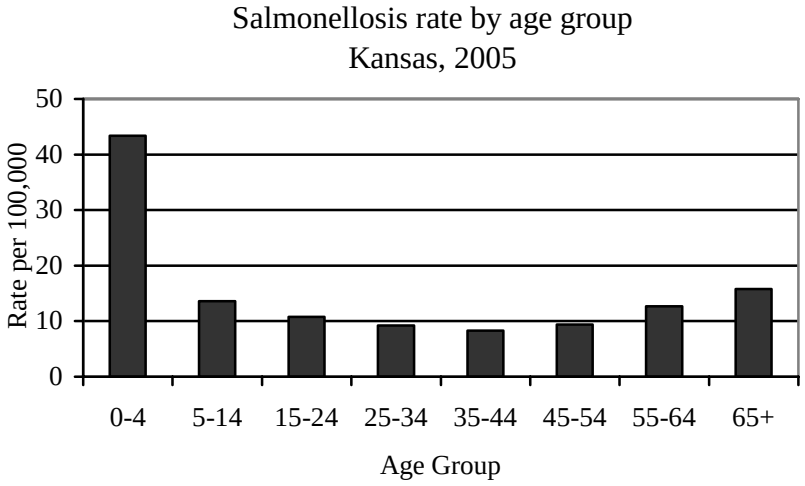
- *Confirmed:* A case that is laboratory confirmed.
- *Probable:* A clinically compatible case that is epidemiologically linked to a confirmed case.

Epidemiology and Trends

2005 Kansas Count: 369

	Rate per 100,000	*95% CI*
Kansas Rate	13.5	(12.1 - 14.9)
U.S. Rate (2004)	14.5	*NA*
Gender		
Male	13.6	(11.6 - 15.6)
Female	13.4	(11.4 - 15.3)
Race		
White	9.9	(8.6 - 11.1)
Black	5.8	(2.3 - 9.3)
Asian/Pacific Islander	9.6	(1.9 - 17.3)
Ethnicity		
Hispanic	10.4	(6.2 - 14.7)
Non-Hispanic	7.8	(6.7 - 8.9)
Geographic area		
Urban County	12.9	(11.0 - 14.8)
Non-Urban County	14.1	(12.1 - 16.1)





In 2005, 369 cases of salmonellosis were reported in Kansas, 25 fewer cases than what was reported in 2004. The three-year median for 2002-2004 was 354. In 2005, the cases ranged in age from less than 1 year to 92 years, with a median age of 26 years. Though salmonellosis occurred in persons of all age groups, 22% of cases occurred in those less than 5 years of age (43.4 per 100,000).

Nearly all of the reported cases were apparently sporadic. No in-state outbreaks were identified; however, cases of *S.* Braenderup, *S.* Enteritidis, *S.* Typhimurium, and *S.* Montevideo were investigated for a possible connection to various multistate outbreaks.

Serotype information was available for 80% (294) of the salmonellosis cases reported. The five most frequently isolated serotypes were: *S.* Typhimurium (50), *S.* Enteritidis (46), *S.* Newport (33), *S.* Heidelberg (18), and *S.* Infantis (7). Forty-six isolates were characterized as *S.* Subspecies I, Group B, and 16 isolates were characterized as Group C—the state laboratory was unable to complete serotyping on these isolates.

Other serotypes reported in 2005 were: Agona, Anatum, Apapa, Arechavaleta, Arizona, Assen, Bareilly, Berta, Chester, Choleraesius, Derby, Hartford, Java, Javiana, Livingstone, Litchfield, Minnesota, Montevideo, Muenchen, Norwich, Oranienberg, Panama, Paratyphi A, Saintpaul, Senftenberg, Tennessee, Thompson, Virchow.